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BUREAU OF LAND MANAGEMENT**TECHNICAL NOTE**

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## RUSSIAN WILDRYE

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Introduction. The native distribution of Russina wildrye (Elymus junceus) is extremely wide. It lives on dry saline soils from Iran northward to the lower regions of the Union of Soviet Socialist Republic, eastward into western Siberia, and across Asia to Outer Mongolia. The first recorded introduction into the United States was in 1927.

BOTANICAL DATA

Description. Russian wildrye is a large cross-fertilized bunchgrass, with erect naked stems two to four feet tall, arising from an abundance of basal leaves. The leaves are lax and strongly nerved; they are six to twelve inches long and up to one-fourth inch wide. Plant color varies from dark to light green, with many shades of blue-green. The head is a dense spike with seeds that shatter readily when mature.

Characteristics. Russian wildrye can be grown at elevations of 6,000 to 10,000 feet. It is adapted to a fairly wide range of soil types but appears to do best on fine-textured soils. This species requires a relatively fertile soil and does poorly on soils of low fertility, especially coarse-textured soils. For saline or alkaline soils, it is better adapted than crested wheatgrass (Agropyron cristatum).

Russian wildrye is exceptionally resistant to cold and drought. It owes its drought resistance to an extensive, fibrous root system which may penetrate soil depth eight to ten feet.

Although Russian wildrye begins growth early in the spring, it remains green and digestible long into the summer months. Growth and recovery after grazing are excellent, especially where summer rains occur. For this reason, its best grazing use is in late summer and early fall when livestock often lose weight on other grasses.

Nutritive qualities are excellent. Protein remains at a higher level from midsummer to winter than for other grasses. Livestock gains are generally good, even though production based on forage yields may often be relatively low.



## MANAGEMENT INFORMATION

Grazing Preference. Both livestock and game prefer the basal growth of this species. Palatability, especially for sheep, is higher throughout the season than for most cool-season grasses. During early spring, cattle may show a preference for other grasses.

Planting. Under unfavorable conditions, Russian wildrye is more difficult to establish than crested wheatgrass. Seedlings are more likely to succumb to excessive planting depth, lack of moisture, blowing soil, crusted soil, insect damage, seedling diseases, and other conditions restricting growth. Seedbed and seeding requirements are, therefore, more exacting than for many other grasses.

Because of the bunch-type growth of the Russian wildrye, and lack of volunteering, thin stands normally do not thicken. Since plants are strongly competitive as they become older, the soil around each plant becomes bare and is exposed to erosion. Thin stands may become excessively hummocky with age. Under most conditions, it is advisable to reseed thin stands before they become established.

Seed Harvesting. Seed shatters rapidly when mature, but harvesting should not start before seed is in the dough stage. Harvesting should be completed within a period of three to four days. A binder is best for harvesting because of less danger from shattering and heating. The crop can be combined, but extreme care should be exercised to avoid heating.

There are approximately 175,000 seeds per pound. Germination is rapid and often exceeds 90 percent under favorable conditions. Seed remains viable about five years, but it should be planted within three years to obtain good germination and seedling vigor.

Seed Availability and Costs. Russian wildrye seed is readily available from commercial seed suppliers at an average cost of \$.35 per pound.



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